UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HIDEYUKI MIYATA, HIROSHI NAKAMOTO and HIROSHI ONAKA

Appeal No. 2005-1776
Application No. 09/272,404

ON BRIEF

Before HAIRSTON, KRASS and JERRY SMITH, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 5 through 8, 11 through 20, 22 through 29, 31 through 33, 35 and 37 through 39.

The disclosed invention relates to an adjusting circuit and an optical modulator in an optical transmitter. The adjusting circuit adjusts at least one of a rise time and a fall time of an

electrical modulation signal. A modulated light signal at a receiver is used in the adjustment of the rise time and the fall time of the electrical modulation signal. The output from the adjusting circuit is provided to the optical modulator.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

> 1. An apparatus comprising:
>
> an optical transmitter comprising
>
> a light source emitting a light,
>
> a modulation signal generator generating an electrical modulation signal having a corresponding rise time and fall time,
>
> an adjusting circuit adjusting at least one of the rise time and fall time of the electrical modulation signal, and
>
> a modulator modulating the emitted light with the adjusted electrical modulation signal, the optical transmitter transmitting the modulated light to an optical transmission path; and
>
> a receiver receiving the transmitted, modulated light through the optical transmission path, wherein the adjusting circuit adjusts at least one of the rise time and fall time in accordance with characteristics of the modulated light at the receiver.

The references relied on by the examiner are:

Chraplyvy et al. (Chraplyvy)	5,420,868	May 30, 1995
Marcuse et al. (Marcuse)	5,608,561	Mar. 4, 1997
Clow et al. (Clow)	6,005,890	Dec. 21, 1999 (filed Aug. 7, 1997)

Claims 1, 5 through 8, 11, 12, 15 through 20, 22, 25 through 29, 31 through 33, 35 and 37 through 39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Marcuse in view of Clow.

Claims 13, 14, 23 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Marcuse in view of Clow and Chraplyvy.

Reference is made to the briefs and the answer for the respective positions of the appellants and the examiner.

OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejections of claims 1, 5 through 8, 11 through 20, 22 through 29, 31 through 33, 35 and 37 through 39.

According to the examiner (answer, page 4), Marcuse discloses all of the apparatus of claims 1, 11, 12, 22, 26, 27, 31, 33 and 39 except for "a receiver receiving the transmitted, modulated light through the optical transmission path wherein the adjusting circuit adjusts at least one of the rise time and fall time in accordance with characteristics of the modulated light at a receiver." The examiner turns to Clow which purportedly

teaches "a monitoring and feedback system wherein the transmission of a signal is monitored at a receiver, wherein the information obtained is used to make adjustments to at least one of the rise time and fall time in the system via a feedback signal to the transmitter (see abstract), thereby optimizing the system" (answer, pages 4 and 5). Based upon the teachings of Clow, the examiner concludes (answer, page 5) that "it would have been obvious to one skilled in the art at the time the invention was made to have monitored a signal transmitted to a receiver as taught by Clow to maximize the benefit of the transmitter taught by Marcuse by using the information obtained at the receiver to make adjustments to one of the rise time and fall time in the system via a feedback signal to the transmitter."

Appellants argue inter alia that the skilled artisan would not have made the suggested modification to the modulated light teachings of Marcuse because the feedback signal in Clow is an electrical signal as opposed to a light feedback signal (brief, pages 5 through 8). We agree. Nothing in the record before us supports the examiner's reason for making the suggested modification to the teachings of Marcuse based upon the teachings

of Clow. As stated in In re Lee, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002), an examiner's conclusory statements based upon subjective belief and unknown authority can not take the place of evidence in the record to demonstrate the obviousness of the claimed subject matter. Thus, the obviousness rejection of claims 1, 5 through 8, 11, 12, 15 through 20, 22, 25 through 29, 31 through 33, 35 and 37 through 39 is reversed.

The obviousness rejection of claims 13, 14, 23 and 24 is reversed because the teachings of Chraplyvy fail to cure the noted shortcoming in the teachings of Marcuse and Clow.

DECISION

The decision of the examiner rejecting claims 1, 5 through 8, 11 through 20, 22 through 29, 31 through 33, 35 and 37 through 39 is reversed.

REVERSED

KENNETH W. HAIRSTON)
Administrative Patent Judge)
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ERROL A. KRASS) APPEALS AND
Administrative Patent Judge) INTERFERENCES
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